Application Serial No. 09/857,402

Filing Date: September 17, 2001

Docket No: 976-11 PCT/US/RCE III

Page 2 of 7

Amendments to the Claims

This listing of claims replaces all prior versions of listing of claims, and listing of claims in the application.

Listing of Claims

- 1-14. (Cancelled)
- 15. (Currently Amended) A vaccine formulation suitable for mucosal administration comprising:
 - (a) a mixture of a first vaccine antigen which is Hepatitis B virus surface antigen (HBsAg), and
 - (b) a second vaccine antigen which is a viral nucleocapsid or a virus-like particle; wherein said HBsAg has an adjuvant effect on the second vaccine antigen, and wherein said first and second vaccine antigens are each present from 0.001mg to 1mg.
- 16. (Previously Presented) The vaccine formulation according to claim 15, wherein the viral nucleocapsid is the nucleocapsid antigen of Hepatitis B virus.

17-20. (Cancelled)

- 21. (Previously Presented) The vaccine formulation according to claim 15, wherein the vaccine formulation is suitable for nasal administration.
- 22. (Previously Presented) The vaccine formulation according to claim 15, wherein the vaccine formulation is suitable for use as a therapeutic vaccine against Hepatitis B virus (HBV) infection.
- 23. (Previously Presented) The vaccine formulation according to claim 15, wherein the vaccine formulation is suitable for use as a preventive vaccine against Hepatitis B virus (HBV) infection.

Application Serial No. 09/857,402 Filing Date: September 17, 2001

Docket No: 976-11 PCT/US/RCE III

Page 3 of 7

24-37. (Cancelled)

- 38. (Currently Amended) A vaccine formulation suitable for mucosal administration, comprising:
 - (a) a mixture of a first vaccine antigen which is Hepatitis B virus surface antigen (HBsAg), and
 - (b) a second vaccine antigen and a third vaccine antigen wherein the second or third vaccine antigen is a viral nucleocapsid,

wherein the vaccine antigens are each present from 0.001mg to 1mg, wherein the HBsAg has an adjuvant effect on the second or third vaccine antigen.

- 39. (Currently Amended) The vaccine formulation according to claim 38, wherein the second vaccine antigen is an antigen of a viral nucleocapsid or a virus like particle.
- 40. (Cancelled)
- 41. (Previously Presented) The vaccine formulation according to claim 39, wherein the third vaccine antigen is Hepatitis B virus core antigen (HBcAg).
- 42. (Previously Presented) A method for administering a vaccine formulation to a mammal for generating an immune response, the method comprising administering mucosally to the mammal a vaccine formulation comprising:
 - (a) a mixture of a first vaccine antigen which is Hepatitis B virus surface antigen (HBsAg), and
 - (b) a second vaccine antigen which is a viral nucleocapsid or a virus like particle;

wherein said HBsAg has an adjuvant effect on the second vaccine antigen, and wherein said first and second vaccine antigen are each present from 0.001 mg to 1 mg.